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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,787	12/20/2001	Jeffrey E. Fish	KCX-398 (15417)	9570

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DORITY & MANNING, P.A.  
POST OFFICE BOX 1449  
GREENVILLE, SC 29602-1449

EXAMINER
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BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 09/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/027,787	<b>Applicant(s)</b> FISH ET AL.	
	<b>Examiner</b> Jenna-Leigh Befumo	<b>Art Unit</b> 1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 October 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                     | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference signs not mentioned in the description: 10 in Figure 5. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference signs in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 – 6, 10, 13, 25 – 30, 34, 37, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Bjornberg et al. (4,892,535).

Bjornberg et al. discloses an absorbent pad having a liquid-impervious back sheet, regions of absorbent material, and a liquid-pervious cover sheet (abstract). The cover sheet has pockets formed therein, in which the regions of absorbent material are disposed. The regions of absorbent material are placed in the pocket regions via a vacuum (column 3, lines 8 – 19). The cover sheet is then bonded, either adhesively or by heat sealing, directly to the back sheet along lines which separate the regions of absorbent material (abstract). The bond lines form channels along which the liquid can travel. The liquid impervious backing sheet is made from conventional backing sheet materials such as a polyethylene film with a thickness of 0.10 mm to 0.050 mm (column 3, lines 59 – 62). The cover sheet can be made from any non-woven

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materials which are conventionally used in the disposable diaper art (column 4, lines 35 – 40).

The absorbent material is made from absorbent material which has a high capacity to absorb liquid and any conventional absorbent material can be used (column 4, lines 1 – 9).

The pocket regions formed by bonding the cover sheet to the back sheet can be in various shapes such as a diamonds, squares, hexagons, or triangles (column 4, lines 13 – 17). The pockets can range in size from 10 x 10mm up to 100 x 100mm, and Bjornberg et al. discloses the diamond shape has a size of 62 x 28mm (column 4, lines 25 – 28). Thus, the diamond shape has a length to width ratio of greater than 2. And the size range for the pocket regions can produce a length to width ratio of up to 100:10, or 10. The depth of the pockets can vary from 1 to 20 mm or more (column 4, lines 33 – 34). Thus, the width to height ratio can range from 10:20 to 100:1, or 0.5 to 100. Therefore, claims 1 – 6, 13, 25 – 30, 37, and 39 are rejected.

Claims 10 and 34 are also rejected since the unfused portion would inherently be permeable to liquid due to the porous nonwoven cover sheet, while the fused portion would inherently be impermeable to liquid due to the adhesive or heat welding bonding the permeable cover sheet directly to impermeable backing sheet. If the fused portion was not impermeable then the back sheet would no longer be impermeable either.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 7, 8, 12, 14 – 18, 20, 22 – 24, 31, 32, 36, and 38 are rejected under 35 U.S.C.

103(a) as being unpatentable over Bjornberg et al.

The features of Bjornberg et al. have been set forth above. Bjornberg et al. discloses that the back sheet is made from a film layer having a thickness of 0.010 mm to 0.050 mm and the cover sheet can be made from nonwoven materials. However, Bjornberg et al. fails to teach the thickness of the nonwoven layer. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a nonwoven material having the claimed thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). One of ordinary skill in the art would choose a nonwoven sheet which is as thin as possible to cut down on the bulk and overall thickness of the absorbent pad. Thus, claims 7, 8, 15 – 18, 20, 23, 31, and 32 are rejected.

Further, Bjornberg et al. fails to teach that the nonwoven fabric would mask the color of the absorbent material. However, it would have been obvious to one having ordinary skill in the art to choose a nonwoven material which would block the color of the absorbent material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. In this case, one of ordinary skill in the art would desire a nonwoven material which while remaining porous, would cover the absorbent material sufficiently so that the absorbent material would not be able leak out of the absorbent pad through the porous nonwoven layer. Therefore, one of ordinary skill in the art would choose a nonwoven that has small pores that only liquid could pass through which

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would result in the absorbent material being masked by the nonwoven cover layer. Thus, claims 12, 22, and 36 are rejected.

Finally, Bjornberg et al. fails to teach the amount of fused area as compared to the amount of unfused portions. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the claimed percentage of fused area, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, as set forth above. One of ordinary skill in the art would choose an amount of fused portions that would sufficiently hold the cover sheet and back sheet together while leaving a sufficient amount of unfused portion so that there is enough absorbent material to readily absorb liquids applied to the absorbent pad and the regions are spaced far enough apart so that the liquid can easily flow to dry areas in the absorbent pad. Therefore, claims 14, 24, and 38 are rejected.

6. Claims 1 – 8, 10, 12 – 18, 20, 22 – 32, 34, and 36 – 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baer et al. (5,938,650).

Baer et al. discloses an absorbent pad comprising two thin outer layers, at least one being porous, and a quantity of superabsorbent particles provided between the outer layers in individual unbonded open zones, or pockets, defined by intersecting heat bond lines (abstract). As shown in Figures 5 – 7, the pocket regions can be formed in various shapes. The outer layers are made from either nonwoven materials or film materials (column 3, lines 18 – 32). The absorbent core is very thin, having an overall thickness of less than 7 mm, or about 0.28 in (column 4, lines 28 – 30). The composite is formed as shown in Figure 1. Particles are deposited on the lower layer by a powder meter or other suitable applicator, then the top layer is

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applied to the composite, and then the layers are passed through a pair of rollers under heat and pressure to form the bond lines. (column 3, line 57 – column 4, lines 4).

While Baer et al. fails to teach height to width ratio and length to width ratios for the pocket region, Baer et al. discloses that different bonding patterns can be used to form different sized pocket areas. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the claimed length to width and width to height ratios of the pocket region, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, as set forth above. One of ordinary skill in the art would choose to modify the shape or size of the pocket region to control the location of the absorbent material and the shape of the pocket regions so that the liquid will readily flow to the dry areas and be efficiently absorbed by the absorbent core. Therefore, claims 1 – 6, 13, 25 – 30, 37, and 39 are rejected.

Claims 10 and 34 are also rejected since the unfused portion would inherently be permeable to liquid due to the porous cover sheet, while the fused portion would inherently be impermeable to liquid due to the adhesive or heat welding bonding the permeable cover sheet directly to impermeable backing sheet. If the fused portion was not impermeable then the back sheet would no longer be impermeable either.

Further, even though Baer et al. fails to teach the thickness of the individual substrate layers, Baer et al. discloses that the overall thickness of the absorbent core is less than 7 mm. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a nonwoven and film layers having the claimed thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, as set forth

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above. One of ordinary skill in the art would be motivated to choose thin substrate layers so that the overall thickness of the absorbent core would not exceed 7 mm. Therefore, claims 7, 8, 15 – 18, 20, 23, 31, and 32 are rejected.

Further, Baer et al. fails to teach that the nonwoven fabric would mask the color of the absorbent material. However, it would have been obvious to one having ordinary skill in the art to choose a nonwoven material which would block the color of the absorbent material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use, as set forth above. In this case, one of ordinary skill in the art would desire a nonwoven material which while remaining porous, would cover the absorbent material sufficiently so that the absorbent material would not be able leak out of the absorbent pad through the porous nonwoven layer. Therefore, one of ordinary skill in the art would choose a nonwoven that has small pores that only liquid could pass through which would result in the absorbent material being masked by the nonwoven cover layer. Thus, claims 12, 22, and 36 are rejected.

Finally, Baer et al. fails to teach the amount of fused area as compared to the amount of unfused portions. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the claimed percentage of fused area, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, as set forth above. One of ordinary skill in the art would choose an amount of fused portions that would sufficiently hold the cover sheet and back sheet together while leaving a sufficient amount of unfused portion so that there is enough absorbent material to readily absorb liquids applied to the absorbent pad and



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the absorbent regions are spaced far enough apart so that the liquid can easily flow to dry areas in the absorbent pad. Therefore, claims 14, 24, and 38 are rejected.

7. Claims 9, 19, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjornberg et al. or Baer et al. in view of Tanzer et al. (5,411,497).

The features of Bjornberg et al. and Baer et al. have been set forth above. Bjornberg et al. and Baer et al. disclose that impermeable films can be used in the absorbent pads. However, both Bjornberg et al. and Baer et al. fail to teach using a film layer which is impermeable to liquids and permeable to gases. Tanzer et al. is drawn to absorbent articles. Tanzer et al. discloses that the impermeable back sheet can be made from a microporous, breathable film which allows water vapor to escape from the absorbent structure (column 6, lines 60 – 66). The breathable back sheet would make the absorbent article more comfortable to the user due to release of the moisture vapor. Therefore, it would have been obvious to one of ordinary skill in the art to substitute the breathable back sheet taught by Tanzer et al. for the back sheet taught by Bjornberg et al. or Baer et al. since Tanzer et al. teaches that the breathable back sheet would allow moisture vapor to escape making the absorbent article more comfortable and Bjornberg et al. or Baer et al. teaches that conventional film layers can be used as the liquid impervious back sheets in the absorbent articles. Thus, claims 9, 19, and 33 are rejected.

8. Claims 11, 21, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjornberg et al. or Baer et al. in view of Taylor et al. (5,332,613).

The features of Bjornberg et al. and Baer et al. have been set forth above. Bjornberg et al. and Baer et al. both fail to teach using an elastic component in the absorbent pad. Taylor et al. is drawn to nonwoven materials. Taylor et al. teaches that there has been a continuing need for elastic material having a low elastic modulus and which retains its low elastic modulus

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during elongation to provide a soft, gentle elasticity (column 1, lines 15 – 20). Further, an elastic material having a low elastic modulus and which retains its low elastic modulus during elongation would be particularly desirable for use in disposable diapers and other personal care products because articles manufactured from such materials are able to softly and gently conform to the body of a wearer and repeatedly extend and retract without creating uncomfortable pressure against the skin (column 1, lines 25 – 32). Therefore, it would have been obvious to one of ordinary skill in the art to use an elastic material as taught by Taylor et al. in the absorbent article taught by Bjornberg et al. or Baer et al. to produce an absorbent pad which would be able to softly and gently conform to the body of a wearer and repeatedly extend and retract without creating uncomfortable pressure against the skin. Therefore, claims 11, 21, and 35 are rejected.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jenna-Leigh Befumo  
September 4, 2003



CHERYL A. JASKA  
PRIMARY EXAMINER